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## Test Report on Cement

| | |
|---|---|
| **Project** | COMPREHENSIVE DEVELOPMENT FOR ROADS AND DRAINS IN WARD NO. 9, 10 AND 11 UNDER CMC AND TMC GRANTS, VIDYARANYAPURA SUB-DIVISION, YELAHANKA ZONE, BYATARAYANAPURA DIVISION. |
| **Client** | Bruhat Bangalore Mahanagar Palike |
| **Consultant** | TEJUS CONSULTANTS |
| **Contractor** | M/S Ram and Company, Engineers & Contractors. |
| **Sample ID** | Cement |
| **Date of Sample Tested** | 04.04.18 |
| **Sample Supplied By** | Agency |

| Sl.No. | Descriptions | Test Method as per IS | Test Result | Requirements as per IS: 12269-1987 |
|---|---|---|---|---|
| 1 | a) Initial Setting Time | IS-4031 (Part-5) | 36 Minutes | Not Less than 30 Minutes |
| | b) Final Setting Time | IS-4031 (Part-5) | 379 Minutes | Not More than 600 Minutes |
| 2 | Soundness | IS-4031 (Part-3) By the Le-Chatelier method | 3mm | Not More than 10 mm |
| 3 | Standard Consistency | IS-4031 (Part-4) | 28.00% | |

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# TEST REPORT

| | | |
|---|---|---|
| Clients | Bruhat Bangalore Mahanagara Palike | |
| Project | COMPREHENSIVE DEVELOPMENT FOR ROADS AND DRAINS IN WARD NO. 9, 10 AND 11 UNDER CMC AND TMC GRANTS, VIDYARANYAPURA SUB-DIVISION, YELAHANKA ZONE, BYATARAYANAPURA DIVISION. | |
| Consultants | TEJUS CONSULTANTS | |
| Contractor | M/S Ram and Company, Engineers & Contractors | |
| Total Weight: | 8600 | gms |

## SIEVE ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| Type of Material | 12.5 mm down size | | Proposed Use | CC Road | |
| Sample Location | | | Date of Sampling | 06.04.18 | |
| | | | Date of Testing | 06.04.18 | |
| IS Sieve Size (in mm) | Weight Retained | Cum. Weight Retained | Cum. % Retained | Cum. % Passing | Spec. Limit (%) Passing |
| 20.0 | 0 | 0 | 0 | 100 | 100 |
| 12.5 | 332 | 332 | 3.86 | 96.14 | 90-100 |
| 10.0 | 2462 | 2794 | 32.49 | 67.51 | 40-85 |
| 4.75 | 5632 | 8426 | 97.98 | 2.02 | 0-10 |
| Pan | 180 | 8606 | | | |
| Total | 8600 | | | | |

**Remarks :** Satisfactory / Not Satisfactory

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# TEST REPORT

| | | |
|---|---|---|
| Clients | Bruhat Bangalore Mahanagara Palike | |
| Project | COMPREHENSIVE DEVELOPMENT FOR ROADS AND DRAINS IN WARD NO. 9, 10 AND 11 UNDER CMC AND TMC GRANTS, VIDYARANYAPURA SUB-DIVISION, YELAHANKA ZONE, BYATARAYANAPURA DIVISION. | |
| Consultants | TEJUS CONSULTANTS | |
| Contractor | M/S Ram and Company, Engineers & Contractors | |
| Total Weight: | 10000 | gms |

## SIEVE ANALYSIS

| Type of Material | 12.5 mm down size | | Proposed Use | CC Road | |
|---|---|---|---|---|---|
| Sample Location | Plant | | Date of Sampling | 06.04.18 | |
| | | | Date of Testing | 06.04.18 | |
| IS Sieve Size (in mm) | Weight Retained | Cum. Weight Retained | Cum. % Retained | Cum. % Passing | Spec. Limit (%) Passing |
| 20.0 | 0 | 0 | 0 | 100 | 100 |
| 12.5 | 600 | 600 | 6.00 | 94.00 | 90-100 |
| 10.0 | 3220 | 3820 | 38.20 | 61.80 | 40-85 |
| 4.75 | 5822 | 9642 | 96.42 | 3.58 | 0-10 |
| Pan | 358 | 10000 | | | |
| Total | 10000 | | | | |

**Remarks :** Satisfactory / Not Satisfactory

**Consultant's Representative**

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## Test Report on Cement

| | |
|---|---|
| **Project** | COMPREHENSIVE DEVELOPMENT FOR ROADS AND DRAINS IN WARD NO. 9, 10 AND 11 UNDER CMC AND TMC GRANTS, VIDYARANYAPURA SUB-DIVISION, YELAHANKA ZONE, BYATARAYANAPURA DIVISION. |
| **Client** | Bruhat Bangalore Mahanagar Palike |
| **Consultant** | TEJUS CONSULTANTS |
| **Contractor** | M/S Ram and Company, Engineers & Contractors. |
| **Sample ID** | Cement |
| **Date of Sample Tested** | 06.04.18 |
| **Sample Supplied By** | Agency |

| Sl.No. | Descriptions | Test Method as per IS | Test Result | Requirements as per IS: 12269-1987 |
|---|---|---|---|---|
| 1 | a) Initial Setting Time | IS-4031 (Part-5) | 38 Minutes | Not Less than 30 Minutes |
| | b) Final Setting Time | IS-4031 (Part-5) | 380 Minutes | Not More than 600 Minutes |
| 2 | Soundness | IS-4031 (Part-3) By the Le-Chatelier method | 2mm | Not More than 10 mm |
| 3 | Standard Consistency | IS-4031 (Part-4) | 28.00% | |

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## Test Report on Cement

| | |
|---|---|
| **Project** | COMPREHENSIVE DEVELOPMENT FOR ROADS AND DRAINS IN WARD NO. 9, 10 AND 11 UNDER CMC AND TMC GRANTS, VIDYARANYAPURA SUB-DIVISION, YELAHANKA ZONE, BYATARAYANAPURA DIVISION. |
| **Client** | Bruhat Bangalore Mahanagar Palike |
| **Consultant** | TEJUS CONSULTANTS |
| **Contractor** | M/S Ram and Company, Engineers & Contractors. |
| **Sample ID** | Cement |
| **Date of Sample Tested** | 06.04.18 |
| **Sample Supplied By** | Agency |

| Sl.No. | Descriptions | Test Method as per IS | Test Result | Requirements as per IS: 12269-1987 |
|---|---|---|---|---|
| 1 | a) Initial Setting Time | IS-4031 (Part-5) | 39 Minutes | Not Less than 30 Minutes |
| | b) Final Setting Time | IS-4031 (Part-5) | 380 Minutes | Not More than 600 Minutes |
| 2 | Soundness | IS-4031 (Part-3) By the Le-Chatelier method | 4 mm | Not More than 10 mm |
| 3 | Standard Consistency | IS-4031 (Part-4) | 28.00% | |

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# TEST REPORT

| | | |
|---|---|---|
| Clients | Bruhat Bangalore Mahanagara Palike | |
| Project | COMPREHENSIVE DEVELOPMENT FOR ROADS AND DRAINS IN WARD NO. 9, 10 AND 11 UNDER CMC AND TMC GRANTS, VIDYARANYAPURA SUB-DIVISION, YELAHANKA ZONE, BYATARAYANAPURA DIVISION. | |
| Consultants | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore | |
| Contractor | M/S Ram and Company, Engineers & Contractors | |
| Total Weight: | 10000 | gms |

## SIEVE ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| Type of Material | 20 mm down size | | Proposed Use | CC Road | |
| Sample Location | Plant | | Date of Sampling | 06.04.18 | |
| | | | Date of Testing | 06.04.18 | |
| IS Sieve Size | Weight Retained | Cum. Weight Retained | Cum. % Retained | Cum. % Passing | Spec. Limit (%) Passing |
| 40.00 mm | 0 | 0 | 0 | 100 | 100 |
| 20.00 mm | 282 | 282 | 2.82 | 97.18 | 95 - 100 |
| 10.00 mm | 4752 | 5034 | 50.34 | 49.66 | 25 - 55 |
| 4.75 mm | 4252 | 9286 | 92.86 | 7.14 | 0 - 10 |
| Pan | 714 | 10000 | | | |
| | | | | | |

Remarks : Satisfactory / Not Satisfactory

Consultant's Representative

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# TEST REPORT

| | | |
|---|---|---|
| Clients | Bruhat Bangalore Mahanagara Palike | |
| Project | COMPREHENSIVE DEVELOPMENT FOR ROADS AND DRAINS IN WARD NO. 9, 10 AND 11 UNDER CMC AND TMC GRANTS, VIDYARANYAPURA SUB-DIVISION, YELAHANKA ZONE, BYATARAYANAPURA DIVISION. | |
| Consultants | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore | |
| Contractor | M/S Ram and Company, Engineers & Contractors | |
| Total Weight: | 10000 | gms |

## SIEVE ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| Type of Material | 20 mm down size | | Proposed Use | CC Road | |
| Sample Location | | | Date of Sampling | 06.04.18 | |
| | | | Date of Testing | 06.04.18 | |
| IS Sieve Size | Weight Retained | Cum. Weight Retained | Cum. % Retained | Cum. % Passing | Spec. Limit (%) Passing |
| 40.00 mm | 0 | 0 | 0 | 100 | 100 |
| 20.00 mm | 462 | 462 | 4.62 | 95.38 | 95 - 100 |
| 10.00 mm | 4822 | 5284 | 52.84 | 47.16 | 25 - 55 |
| 4.75 mm | 4562 | 9846 | 98.46 | 1.54 | 0 - 10 |
| Pan | 154 | 10000 | | | |
| | | | | | |

Remarks : Satisfactory / Not Satisfactory

Consultant's Representative

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## Test Report on Cement

| | |
|---|---|
| **Project** | COMPREHENSIVE DEVELOPMENT FOR ROADS AND DRAINS IN WARD NO. 9, 10 AND 11 UNDER CMC AND TMC GRANTS, VIDYARANYAPURA SUB-DIVISION, YELAHANKA ZONE, BYATARAYANAPURA DIVISION. |
| **Client** | Bruhat Bangalore Mahanagar Palike |
| **Consultant** | TEJUS CONSULTANTS |
| **Contractor** | M/S Ram and Company, Engineers & Contractors. |
| **Sample ID** | Cement |
| **Date of Sample Tested** | 07.04.18 |
| **Sample Supplied By** | Agency |

| Sl.No. | Descriptions | Test Method as per IS | Test Result | Requirements as per IS: 12269-1987 |
|---|---|---|---|---|
| 1 | a) Initial Setting Time | IS-4031 (Part-5) | 38 Minutes | Not Less than 30 Minutes |
| | b) Final Setting Time | IS-4031 (Part-5) | 383 Minutes | Not More than 600 Minutes |
| 2 | Soundness | IS-4031 (Part-3) By the Le-Chatelier method | 2 mm | Not More than 10 mm |
| 3 | Standard Consistency | IS-4031 (Part-4) | 27.00% | |

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## Test Report on Cement

| | |
|---|---|
| **Project** | COMPREHENSIVE DEVELOPMENT FOR ROADS AND DRAINS IN WARD NO. 9, 10 AND 11 UNDER CMC AND TMC GRANTS, VIDYARANYAPURA SUB-DIVISION, YELAHANKA ZONE, BYATARAYANAPURA DIVISION. |
| **Client** | Bruhat Bangalore Mahanagar Palike |
| **Consultant** | TEJUS CONSULTANTS |
| **Contractor** | M/S Ram and Company, Engineers & Contractors. |
| **Sample ID** | Cement |
| **Date of Sample Tested** | 07.04.18 |
| **Sample Supplied By** | Agency |

| Sl.No. | Descriptions | Test Method as per IS | Test Result | Requirements as per IS: 12269-1987 |
|---|---|---|---|---|
| 1 | a) Initial Setting Time | IS-4031 (Part-5) | 37 Minutes | Not Less than 30 Minutes |
| | b) Final Setting Time | IS-4031 (Part-5) | 385 Minutes | Not More than 600 Minutes |
| 2 | Soundness | IS-4031 (Part-3) By the Le-Chatelier method | 5mm | Not More than 10 mm |
| 3 | Standard Consistency | IS-4031 (Part-4) | 27.00% | |

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# TEST REPORT

| | | |
|---|---|---|
| Clients | Bruhat Bangalore Mahanagara Palike | |
| Project | COMPREHENSIVE DEVELOPMENT FOR ROADS AND DRAINS IN WARD NO. 9, 10 AND 11 UNDER CMC AND TMC GRANTS, VIDYARANYAPURA SUB-DIVISION, YELAHANKA ZONE, BYATARAYANAPURA DIVISION. | |
| Consultants | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore | |
| Contractor | M/S Ram and Company, Engineers & Contractors | |
| Total Weight: | 9500 | gms |

## SIEVE ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| Type of Material | 20 mm down size | | Proposed Use | CC Road | |
| Sample Location | | | Date of Sampling | 07.04.18 | |
| | | | Date of Testing | 07.04.18 | |
| IS Sieve Size | Weight Retained | Cum. Weight Retained | Cum. % Retained | Cum. % Passing | Spec. Limit (%) Passing |
| 40.00 mm | 0 | 0 | 0 | 100 | 100 |
| 20.00 mm | 322 | 322 | 3.39 | 96.61 | 95 - 100 |
| 10.00 mm | 4860 | 5182 | 54.55 | 45.45 | 25 - 55 |
| 4.75 mm | 3544 | 8726 | 91.85 | 8.15 | 0 - 10 |
| Pan | 774 | 9500 | | | |

Remarks : Satisfactory / Not Satisfactory

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# TEST REPORT

| | | | | | |
|---|---|---|---|---|---|
| Clients | Bruhat Bangalore Mahanagara Palike | | | | |
| Project | COMPREHENSIVE DEVELOPMENT FOR ROADS AND DRAINS IN WARD NO. 9, 10 AND 11 UNDER CMC AND TMC GRANTS, VIDYARANYAPURA SUB-DIVISION, YELAHANKA ZONE, BYATARAYANAPURA DIVISION. | | | | |
| Consultants | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore | | | | |
| Contractor | M/S Ram and Company, Engineers & Contractors | | | | |
| Total Weight: | 10000 | gms | | | |

## SIEVE ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| Type of Material | 20 mm down size | | Proposed Use | CC Road | |
| Sample Location | | | Date of Sampling | 07.04.18 | |
| | | | Date of Testing | 07.04.18 | |
| IS Sieve Size | Weight Retained | Cum. Weight Retained | Cum. % Retained | Cum. % Passing | Spec. Limit (%) Passing |
| 40.00 mm | 0 | 0 | 0 | 100 | 100 |
| 20.00 mm | 262 | 262 | 2.62 | 97.38 | 95 - 100 |
| 10.00 mm | 4762 | 5024 | 50.24 | 49.76 | 25 - 55 |
| 4.75 mm | 4442 | 9466 | 94.66 | 5.34 | 0 - 10 |
| Pan | 534 | 10000 | | | |
| | | | | | |

Remarks : Satisfactory / Not Satisfactory

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# TEST REPORT

| | | |
|---|---|---|
| Clients | Bruhat Bangalore Mahanagara Palike | |
| Project | COMPREHENSIVE DEVELOPMENT FOR ROADS AND DRAINS IN WARD NO. 9, 10 AND 11 UNDER CMC AND TMC GRANTS, VIDYARANYAPURA SUB-DIVISION, YELAHANKA ZONE, BYATARAYANAPURA DIVISION. | |
| Consultants | TEJUS CONSULTANTS | |
| Contractor | M/S Ram and Company, Engineers & Contractors | |
| Total Weight: | 9500 | gms |

## SIEVE ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| Type of Material | 12.5 mm down size | | Proposed Use | CC Road | |
| Sample Location | | | Date of Sampling | 07.04.18 | |
| | | | Date of Testing | 07.04.18 | |
| IS Sieve Size (in mm) | Weight Retained | Cum. Weight Retained | Cum. % Retained | Cum. % Passing | Spec. Limit (%) Passing |
| 20.0 | 0 | 0 | 0 | 100 | 100 |
| 12.5 | 582 | 582 | 6.13 | 93.87 | 90-100 |
| 10.0 | 2864 | 3446 | 36.27 | 63.73 | 40-85 |
| 4.75 | 5672 | 9118 | 95.98 | 4.02 | 0-10 |
| Total | 9500 | 18618 | | | |

Remarks : Satisfactory / Not Satisfactory

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# TEST REPORT

| | | |
|---|---|---|
| Clients | Bruhat Bangalore Mahanagara Palike | |
| Project | COMPREHENSIVE DEVELOPMENT FOR ROADS AND DRAINS IN WARD NO. 9, 10 AND 11 UNDER CMC AND TMC GRANTS, VIDYARANYAPURA SUB-DIVISION, YELAHANKA ZONE, BYATARAYANAPURA DIVISION. | |
| Consultants | TEJUS CONSULTANTS | |
| Contractor | M/S Ram and Company, Engineers & Contractors | |
| Total Weight: | 10000 | gms |

## SIEVE ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| Type of Material | 12.5 mm down size | | Proposed Use | CC Road | |
| Sample Location | | | Date of Sampling | 07.04.18 | |
| | | | Date of Testing | 07.04.18 | |
| IS Sieve Size (in mm) | Weight Retained | Cum. Weight Retained | Cum. % Retained | Cum. % Passing | Spec. Limit (%) Passing |
| 20.0 | 0 | 0 | 0 | 100 | 100 |
| 12.5 | 572 | 572 | 5.72 | 94.28 | 90-100 |
| 10.0 | 3252 | 3824 | 38.24 | 61.76 | 40-85 |
| 4.75 | 6022 | 9846 | 98.46 | 1.54 | 0-10 |
| Pan | 154 | 10000 | | | |
| Total | 10000 | | | | |

**Remarks :** Satisfactory / Not Satisfactory

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BBMP, Bangalore - 97

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# TEST REPORT

| | |
|---|---|
| Clients | BRUHAT BENGALORE MAHANAGARA PALIKE |
| Project | COMPREHENSIVE DEVELOPMENT FOR ROADS AND DRAINS IN WARD NO. 9, 10 AND 11 UNDER CMC AND TMC GRANTS, VIDYARANYAPURA SUB-DIVISION, YELAHANKA ZONE, BYATARAYANAPURA DIVISION. |
| Consultants | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore |
| Contractor | M/S Ram and Company, Engineers & Contractors |

## SPECIFIC GRAVITY AND WATER ABSORPTION

### FINE AGGREGATE (IS-2386-PART-3)

| | | | |
|---|---|---|---|
| Type of Material | Fine aggregate (River Sand)/ M Sand | Proposed Use | Road concrete/PCC |
| Location/Source | At Plant/ Site | Date of Sampling | 07.04.18 |
| Period of Soaking | 24 hours | Date of Testing | 07.04.18 |

| Sl. No. | Test Property | TRIAL - 1 | TRIAL - 2 | TRIAL - 3 | Average |
|---|---|---|---|---|---|
| A | Weight of sturated surface dry sample gm. | 582 | 637 | 613 | |
| B | Weight of oven - dry sample gm. | 572 | 628 | 605 | |
| C | Weight of Pycnometer Filled with water gm | 1275 | 1275 | 1275 | |
| D | Weight of Pycnometer + sample + water gm | 1642 | 1675 | 1662 | |
| E | Bulk specific gravity $\frac{B}{(C+A-D)}$ | 2.660 | 2.650 | 2.677 | 2.662 |
| G | Absorption (%) $\frac{(A-B)*100}{B}$ | 1.748 | 1.433 | 1.322 | 1.501 |

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# TEST REPORT

| | |
|---|---|
| Clients | BRUHAT BENGALORE MAHANAGARA PALIKE |
| Project | COMPREHENSIVE DEVELOPMENT FOR ROADS AND DRAINS IN WARD NO. 9, 10 AND 11 UNDER CMC AND TMC GRANTS, VIDYARANYAPURA SUB-DIVISION, YELAHANKA ZONE, BYATARAYANAPURA DIVISION. |
| Consultants | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore |
| Contractor | M/S Ram and Company, Engineers & Contractors |

## SIEVE ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| Total Weight: | 3000 gms | | | | |
| Type of Material | Fine aggregate (River Sand)/ M Sand | | Proposed Use | Road concrete/PCC | |
| Sample Location | At Plant/ Site | | Date of Sampling | 07.04.18 | |
| | | | Date of Testing | 07.04.18 | |
| IS Sieve Size | Weight Retained | Cum. Weight Retained | Cum. % Retained | Cum. % Passing | Spec. Limit (%) Passing (Zone-II) |
| 10.00 mm | 0 | 0 | 0 | 100.00 | 100 |
| 4.75 mm | 180 | 180 | 6.00 | 94.00 | 90 - 100 |
| 2.36 mm | 422 | 602 | 20.07 | 79.93 | 75 - 100 |
| 1.18 mm | 568 | 1170 | 39.00 | 61.00 | 55 - 90 |
| 0.600 mm | 422 | 1592 | 53.07 | 46.93 | 35 -59 |
| 0.300 mm | 615 | 2207 | 73.57 | 26.43 | 8-30 |
| 0.150 mm | 500 | 2707 | 90.23 | 9.77 | 0 - 10 |
| Pan | 293 | 3000 | | | - |
| | | | | | |

Remarks : Satisfactory / Not Satisfactory

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# TEST REPORT

| | |
|---|---|
| Clients | BRUHAT BENGALORE MAHANAGARA PALIKE |
| Project | COMPREHENSIVE DEVELOPMENT FOR ROADS AND DRAINS IN WARD NO. 9, 10 AND 11 UNDER CMC AND TMC GRANTS, VIDYARANYAPURA SUB-DIVISION, YELAHANKA ZONE, BYATARAYANAPURA DIVISION. |
| Consultants | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore |
| Contractor | M/S Ram and Company, Engineers & Contractors |

## SPECIFIC GRAVITY AND WATER ABSORPTION
### FINE AGGREGATE (IS-2386-PART-3)

| | | | |
|---|---|---|---|
| Type of Material | Fine aggregate (River Sand)/ M Sand | Proposed Use | Road concrete/PCC |
| Location/Source | At Plant/ Site | Date of Sampling | 07.04.18 |
| Period of Soaking | 24 hours | Date of Testing | 07.04.18 |

| Sl. No. | Test Property | TRIAL - 1 | TRIAL - 2 | TRIAL - 3 | Average |
|---|---|---|---|---|---|
| A | Weight of sturated surface dry sample gm. | 633 | 632 | 646 | |
| B | Weight of oven - dry sample gm. | 623 | 622 | 636 | |
| C | Weight of Pycnometer Filled with water gm | 1275 | 1275 | 1275 | |
| D | Weight of Pycnometer + sample + water gm | 1673 | 1673 | 1681 | |
| E | Bulk specific gravity $\frac{B}{(C+A-D)}$ | 2.651 | 2.658 | 2.650 | 2.653 |
| G | Absorption (%) $\frac{(A-B)*100}{B}$ | 1.605 | 1.608 | 1.572 | 1.595 |

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# TEST REPORT

| | |
|---|---|
| Clients | BRUHAT BENGALORE MAHANAGARA PALIKE |
| Project | COMPREHENSIVE DEVELOPMENT FOR ROADS AND DRAINS IN WARD NO. 9, 10 AND 11 UNDER CMC AND TMC GRANTS, VIDYARANYAPURA SUB-DIVISION, YELAHANKA ZONE, BYATARAYANAPURA DIVISION. |
| Consultants | TEJUS CONSULTANTS Basaveshwar Nagar Bangalore |
| Contractor | M/S Ram and Company, Engineers & Contractors |

## SIEVE ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| Total Weight: | 3000 gms | | | | |
| Type of Material | Fine aggregate (River Sand)/ M Sand | | Proposed Use | Road concrete/PCC | |
| Sample Location | At Plant/ Site | | Date of Sampling | 07.04.18 | |
| | | | Date of Testing | 07.04.18 | |
| IS Sieve Size | Weight Retained | Cum. Weight Retained | Cum. % Retained | Cum. % Passing | Spec. Limit (%) Passing (Zone-II) |
| 10.00 mm | 0 | 0 | 0 | 100.00 | 100 |
| 4.75 mm | 200 | 200 | 6.67 | 93.33 | 90 - 100 |
| 2.36 mm | 412 | 612 | 20.40 | 79.60 | 75 - 100 |
| 1.18 mm | 532 | 1144 | 38.13 | 61.87 | 55 - 90 |
| 0.600 mm | 422 | 1566 | 52.20 | 47.80 | 35 -59 |
| 0.300 mm | 750 | 2316 | 77.20 | 22.80 | 8-30 |
| 0.150 mm | 512 | 2828 | 94.27 | 5.73 | 0 - 10 |
| Pan | 172 | 3000 | | | - |
| | | | | | |

Remarks : Satisfactory / Not Satisfactory

Consultant's Representative

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## Test report on Compressive strength of concrete cubes

| | |
|---|---|
| **Project** | COMPREHENSIVE DEVELOPMENT FOR ROADS AND DRAINS IN WARD NO. 9, 10 AND 11 UNDER CMC AND TMC GRANTS, VIDYARANYAPURA SUB-DIVISION, YELAHANKA ZONE, BYATARAYANAPURA DIVISION. |
| **Client** | Bruhat Bangalore Mahanagar Palike |
| **Consultant** | TEJUS CONSULTANTS |
| **Contractor** | M/S Ram and Company, Engineers & Contractors |
| **Location:** | CC Road |
| **Grade of concrete:** | M20 |
| **Size of cube:** | 150x150x150 mm |
| **Reference IS code:** | IS:516-1959 |

| Sl.No. | Date of Casting | Date of testing | Age of Test | Weight of Cube | Area of Cube | Failure load | Compressive strength | Avg. Compressive strength |
|---|---|---|---|---|---|---|---|---|
| | | | | Kg | $mm^2$ | KN | $N/mm^2$ | $N/mm^2$ |
| 1 | 07.04.18 | 17.04.18 | 7 days | 8.186 | 22500 | 303 | 13.47 | 13.73 |
| 2 | 07.04.18 | 17.04.18 | 7 days | 8.188 | 22500 | 308 | 13.69 | |
| 3 | 07.04.18 | 17.04.18 | 7 days | 8.178 | 22500 | 316 | 14.04 | |

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Vidyaranyapura Sub Division
BBMP, Bangalore - 97

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## KERB STONE (CORE) TEST REPORT

| | | |
|---|---|---|
| **Client** | : | Bruhat Bangalore Mahanagara Palike |
| **Contractor** | : | M/S Ram and Company, Engineers & Contractors. |
| **Name of Work** | : | COMPREHENSIVE DEVELOPMENT FOR ROADS AND DRAINS IN WARD NO. 9, 10 AND 11 UNDER CMC AND TMC GRANTS, VIDYARANYAPURA SUB-DIVISION, YELAHANKA ZONE, BYATARAYANAPURA DIVISION. |
| **No.of Sample Tested** | : | 3 |
| **Date of Testing** | : | 11.04.18 |
| **Techinical Reference** | : | IS:516-1959 (Reaffirmed 1999), SP-24:1983. |
| **Grade of Concrete** | : | $M_{15}$ |

| Sl. No. | Dia of Core D (mm) | Height of Core H (mm) | Core Wt (Kg) | Density of Core (kg / $m^3$) | H / D | Correction factor (Based on H/D) | Failure Load (kN) | Core Strength ( $N/mm^2$) | Correction Factor for the Dia. (Strength | Corrected Cylinder Compressive Strength ($N/mm^2$) | Equivalent Cube Compressive Strength |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 50.00 | 85.00 | 0.392 | 2348.75 | 1.70 | 0.960 | 28.60 | 14.57 | 15.73 | 15.10 | 18.88 |
| 2 | 50.00 | 85.00 | 0.386 | 2312.80 | 1.70 | 0.960 | 28.58 | 14.56 | 15.72 | 15.09 | 18.86 |
| 3 | 50.00 | 85.00 | 0.382 | 2288.84 | 1.70 | 0.960 | 28.62 | 14.58 | 15.74 | 15.11 | 18.89 |

**Note:**

1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory.
3. Any Query regarding the report must be reported reported within 90 days from the date of testing.

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BBMP, Bangalore - 97

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## KERB STONE (CORE) TEST REPORT

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|---|---|---|
| **Client** | : | Bruhat Bangalore Mahanagara Palike |
| **Contractor** | : | M/S Ram and Company, Engineers & Contractors. |
| **Name of Work** | : | COMPREHENSIVE DEVELOPMENT FOR ROADS AND DRAINS IN WARD NO. 9, 10 AND 11 UNDER CMC AND TMC GRANTS, VIDYARANYAPURA SUB-DIVISION, YELAHANKA ZONE, BYATARAYANAPURA DIVISION. |
| **No.of Sample Tested** | : | 3 |
| **Date of Testing** | : | 11.04.18 |
| **Techinical Reference** | : | IS:516-1959 (Reaffirmed 1999), SP-24:1983. |
| **Grade of Concrete** | : | $M_{15}$ |

| Sl. No. | Dia of Core D (mm) | Height of Core H (mm) | Core Wt (Kg) | Density of Core (kg / $m^3$) | H / D | Correction factor (Based on H/D) | Failure Load (kN) | Core Strength ( $N/mm^2$) | Correction Factor for the Dia. (Strength | Corrected Cylinder Compressive Strength ($N/mm^2$) | Equivalent Cube Compressive Strength |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 50.00 | 85.00 | 0.392 | 2348.75 | 1.70 | 0.960 | 28.20 | 14.36 | 15.51 | 14.89 | 18.61 |
| 2 | 50.00 | 85.00 | 0.376 | 2252.89 | 1.70 | 0.960 | 28.30 | 14.41 | 15.57 | 14.94 | 18.68 |
| 3 | 50.00 | 85.00 | 0.378 | 2264.87 | 1.70 | 0.960 | 28.80 | 14.67 | 15.84 | 15.21 | 19.01 |

**Note:**

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## KERB STONE (CORE) TEST REPORT

| | | |
|---|---|---|
| **Client** | : | Bruhat Bangalore Mahanagara Palike |
| **Contractor** | : | M/S Ram and Company, Engineers & Contractors. |
| **Name of Work** | : | COMPREHENSIVE DEVELOPMENT FOR ROADS AND DRAINS IN WARD NO. 9, 10 AND 11 UNDER CMC AND TMC GRANTS, VIDYARANYAPURA SUB-DIVISION, YELAHANKA ZONE, BYATARAYANAPURA DIVISION. |
| **No.of Sample Tested** | : | 3 |
| **Date of Testing** | : | 11.04.18 |
| **Techinical Reference** | : | IS:516-1959 (Reaffirmed 1999), SP-24:1983. |
| **Grade of Concrete** | : | $M_{15}$ |

| Sl. No. | Dia of Core D (mm) | Height of Core H (mm) | Core Wt (Kg) | Density of Core (kg / $m^3$) | H / D | Correction factor (Based on H/D) | Failure Load (kN) | Core Strength ( $N/mm^2$) | Correction Factor for the Dia. (Strength | Corrected Cylinder Compressive Strength ($N/mm^2$) | Equivalent Cube Compressive Strength |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 50.00 | 85.00 | 0.390 | 2336.77 | 1.70 | 0.960 | 28.30 | 14.41 | 15.57 | 14.94 | 18.68 |
| 2 | 50.00 | 85.00 | 0.382 | 2288.84 | 1.70 | 0.960 | 28.60 | 14.57 | 15.73 | 15.10 | 18.88 |
| 3 | 50.00 | 85.00 | 0.386 | 2312.80 | 1.70 | 0.960 | 28.58 | 14.56 | 15.72 | 15.09 | 18.86 |

**Note:**

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